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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
AVERY FONG ET AL. : EXAMINER: LESNIEWSKI, V.
SERIAL NO: 09/440,645 :
FILED: NOVEMBER 16, 1999 : GROUP ART UNIT: 2152
FOR: APPLICATION UNIT :
MONITORING AND REPORTING
SYSTEM AND METHOD WITH USAGE
DATA LOGGED INTO A MAP
STRUCTURE

APPEAL BRIEF

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicants appeal the outstanding rejection of March 27, 2007.

I. REAL PARTY IN INTEREST

The real party in interest in the present application is the Assignee of the present application, Ricoh Company, Ltd. having a place of business at 3-6 Nakamagome 1-chome, Ohta-ku, Tokyo 143-8555 Japan.

II. RELATED APPEALS AND INTERFERENCES

Applicants, applicants' legal representative, and the Assignee are not aware of any other interferences or judicial proceedings that may be related to, directly affect or be directly affected by, or having a bearing on the Board's decision in the pending appeal.

Appellants want to bring attention to three related cases that are also being appealed. Specifically, Appeal Briefs have been filed in related U.S. application serial nos. 09/440,692, 09/393,677, and 09/440,646. Those appeals may be considered related to the present application as they are directed to similar subject matter as in the present application, although the rejections in those cases are based on different art.

III. STATUS OF CLAIMS

Claims 1, 5-10, 14-19, 23-28, and 32-36 are pending in this application. Each of those claims is being appealed.

Claims 2-4, 11-13, 20-22, and 29-31 have been canceled.

IV. STATUS OF AMENDMENTS

No amendment was filed subsequent to the outstanding rejection of March 27, 2007.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claims are directed to a system, method, and computer program product that allow monitoring of how a user selects operations on an operation panel of an image forming device. That is, an image forming device includes an operation panel including plural operations to be selected by a user. Those operations, as non-limiting examples, can relate to a selection of a number of copies, copy conditions, paper size selection, etc. An operation in the claimed invention is to monitor the selection of those operations by a user. That is, the claims are directed to monitoring when a user selects, for example, a paper size operation, when the user selects a copy number operation, etc. One objective of the claimed invention is to monitor such data so that a user's usage of an operation panel can be evaluated, so that the setup, layout, control, etc. of an operation panel of an image forming device can be improved.

Independent Claim 1

Claim 1 is directed to a system including an image forming device having direct network access and including an operation panel, the operation panel comprising a plurality of operations to be selected by a user. With respect to that feature applicants draw attention to Figure 1 in the present specification showing image forming devices 24, 28, 32 having direct access to the network 10, and Figure 11 showing an operation panel 700 with plural operations 705, 710, 715 to be selected by a user; see also the present specification at page 19, line 8 *et seq.*

Further, in claim 1 a monitoring unit is configured to monitor data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, and to generate a log of the monitored data, the log of the monitored data being in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion. With respect to that feature applicants draw attention to Figure 9 in the present specification showing a monitoring and logging block 515 and Figure 12 showing a monitoring package 1200. The monitoring package 1200 monitors data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, which is noted in the present specification for example in Figure 25 and at page 35, line 30 *et seq.* That monitoring package 1200 also generates a log of the monitored data in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion, as shown for example in Figures 22-25 in the present specification each showing a map of key data to value data.

Further, in claim 1 a communicating unit is configured to receive a command to send information based on the log of the monitored data, and to send the information of the monitored data through the direct network access. With respect to that feature applicants draw attention to the sending package 1600, which can receive a command to send information based on the log of the monitored data and can send such information through the direct network access, applicants also draw attention to the discussion in the specification at page 20, line 23 *et seq.*

Further, in claim 1 the monitoring unit and the communicating unit are self-contained in the image forming device prior to any initial external communication connection by the communication unit, and the monitoring unit is configured to generate the log of the monitored data without any initial external communication connection by the communication unit. With respect to that feature applicants draw attention for example to Figure 9 in the present specification showing the monitoring and logging block 515 and the sending block 520 as part of the application unit 300, which can be an image forming device, see also the present specification at page 18, lines 15-17 and page 18, line 30 *et seq.* Applicants also draw attention to Figure 17 in the present specification showing a “start monitoring” operation 1300 and the corresponding discussion in the present specification at page 24, line 18 *et seq.* Those disclosures make clear that the log of the monitored data is generated without any initial external communication connection by the communicating unit.

Independent Claim 10

Claim 10 is directed to a system including an image forming device having direct network access and including an operation panel, the operation panel comprising a plurality of operations to be selected by a user. With respect to that feature applicants draw attention to Figure 1 in the present specification showing image forming devices 24, 28, 32 having

direct access to the network 10, and Figure 11 showing an operation panel 700 with plural operations 705, 710, 715 to be selected by a user; see also the present specification at page 19, line 8 *et seq.*

Further, in claim 10 a monitoring means monitors data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, and generates a log of the monitored data, the log of the monitored data being in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion. With respect to that feature applicants draw attention to Figure 9 in the present specification showing a monitoring and logging block 515 and Figure 12 showing a monitoring package 1200, which correspond to the claimed “monitoring means”. The monitoring package 1200 monitors data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, which is noted in the present specification for example in Figure 25 and at page 35, line 30 *et seq.* That monitoring package 1200 also generates a log of the monitored data in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion, as shown for example in Figures 22-25 in the present specification each showing a map of key data to value data.

Further, in claim 10 a communicating means receives a command to send information based on the log of the monitored data, and to send the information of the monitored data through the direct network access. With respect to that feature applicants draw attention to the sending block 520 in Figure 9 and the sending package 1600 in Figures 20, 212; those elements correspond to the claimed “communicating means”. The sending package 1600 receives a command to send information based on the log of the monitored data and can send

such information through the direct network access, applicants also draw attention to the discussion in the specification at page 20, line 23 *et seq.*

Further, in claim 10 the monitoring means and the communicating means are self-contained in the image forming device prior to any initial external communication connection by the communication means, and the monitoring means is configured to generate the log of the monitored data without any initial external communication connection by the communication means. With respect to that feature applicants draw attention for example to Figure 9 in the present specification showing the monitoring and logging block 515 and the sending block 520 as part of the application unit 300, which can be an image forming device, see also the present specification at page 18, lines 15-17 and page 18, line 30 *et seq.* Applicants also draw attention to Figure 17 in the present specification showing a “start monitoring” operation 1300 and the corresponding discussion in the present specification at page 24, line 18 *et seq.* Those disclosures make clear that the log of the monitored data is generated without any initial external communication connection by the communicating unit.

Independent Claim 19

Claim 19 is directed to a method of monitoring usage of an image forming device having direct network access and including an operation panel, the operation panel comprising a plurality of operations to be selected by a user. With respect to that feature applicants draw attention to Figure 1 in the present specification showing image forming devices 24, 28, 32 having direct access to the network 10, and Figure 11 showing an operation panel 700 with plural operations 705, 710, 715 to be selected by a user; see also the present specification at page 19, line 8 *et seq.*

Further, in claim 19 a monitoring operation monitors data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a

sequence, timing, or frequency of selecting of the plurality of operations, and generates a log of the monitored data, the log of the monitored data being in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion. With respect to that feature applicants draw attention to Figure 9 in the present specification showing a monitoring and logging block 515 and Figure 12 showing a monitoring package 1200. The monitoring package 1200 monitors data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, which is noted in the present specification for example in Figure 25 and at page 35, line 30 *et seq.* That monitoring package 1200 also generates a log of the monitored data in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion, as shown for example in Figures 22-25 in the present specification each showing a map of key data to value data.

Further, in claim 19 a communicating operation receives a command to send information based on the log of the monitored data, and to send the information of the monitored data through the direct network access. With respect to that feature applicants draw attention to the sending package 1600, which can receive a command to send information based on the log of the monitored data and can send such information through the direct network access, applicants also draw attention to the discussion in the specification at page 20, line 23 *et seq.*

Further, in claim 19 the monitoring and communicating operations are performed in the image forming device prior to any initial external communication connection and the log of the monitored data is generated without any initial external communication connection by the communication unit. With respect to that feature applicants draw attention for example to Figure 9 in the present specification showing the monitoring and logging block 515 and the

sending block 520 as part of the application unit 300, which can be an image forming device, see also the present specification at page 18, lines 15-17 and page 18, line 30 *et seq.*

Applicants also draw attention to Figure 17 in the present specification showing a “start monitoring” operation 1300 and the corresponding discussion in the present specification at page 24, line 18 *et seq.* Those disclosures make clear that the log of the monitored data is generated without any initial external communication connection by the communicating unit.

Independent Claim 28

Claim 28 is directed to a computer program product including a computer storage medium and computer program code embedded in the computer storage medium for causing a computer to monitor a user’s usage of an operation panel of an image forming device having direct network access and including an operation panel, the operation panel comprising a plurality of operations to be selected by a user. With respect to that feature applicants draw attention to Figure 1 in the present specification showing image forming devices 24, 28, 32 having direct access to the network 10, and Figure 11 showing an operation panel 700 with plural operations 705, 710, 715 to be selected by a user; see also the present specification at page 19, line 8 *et seq.*

Further, in claim 28 a computer code controls a monitoring operation to monitor data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, and to generate a log of the monitored data, the log of the monitored data being in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion. With respect to that feature applicants draw attention to Figure 9 in the present specification showing a monitoring and logging block 515 and Figure 12 showing a monitoring package 1200. The monitoring package 1200 monitors

data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations, which is noted in the present specification for example in Figure 25 and at page 35, line 30 *et seq.* That monitoring package 1200 also generates a log of the monitored data in the form of a map mapping each of key data in a key portion of the map to respective value data in a corresponding value data portion, as shown for example in Figures 22-25 in the present specification each showing a map of key data to value data.

Further, in claim 28 a computer code controls a communicating operation to receive a command to send information based on the log of the monitored data, and to send the information of the monitored data through the direct network access. With respect to that feature applicants draw attention to the sending package 1600 which can receive a command to send information based on the log of the monitored data and can send such information through the direct network access, applicants also draw attention to the discussion in the specification at page 20, line 23 *et seq.*

Further, in claim 28 the monitoring and communicating operations are executed by computer codes self-contained in the image forming device prior to any initial external communication connection by the communication unit, and the monitoring generates the log of the monitored data without any initial external communication connection by the communication unit. With respect to that feature applicants draw attention for example to Figure 9 in the present specification showing the monitoring and logging block 515 and the sending block 520 as part of the application unit 300, which can be an image forming device, see also the present specification at page 18, lines 15-17 and page 18, line 30 *et seq.* Applicants also draw attention to Figure 17 in the present specification showing a “start monitoring” operation 1300 and the corresponding discussion in the present specification at

page 24, line 18 *et seq.* Those disclosures make clear that the log of the monitored data is generated without any initial external communication connection by the communicating unit.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 7, 8, 10, 16, 17, 19, 25, 26, 28, 34, and 35 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. patent 6,108, 492 to Miyachi in view of U.S. patent 6,026,380 to Weiler et al. (herein “Weiler”). Claims 5, 6, 9, 14, 15, 18, 23, 24, 27, 32, 33, and 36 stand rejected under 35 U.S.C. §103(a) as unpatentable over Miyachi in view of Weiler, further in view of U.S. patent 5,414,494 to Aikens et al. (herein “Aikens”).

Each of the above-noted grounds for rejection is being appealed.

VII. ARGUMENTS

The combination of teachings of Miyachi in view of Weiler does not meet the features relied upon in the Office Action.

a) Miyachi in view of Weiler does not disclose or suggest monitoring “at least one of sequence, timing or frequency of selecting of the plurality of operations” on the operation panel

Claim 1 recites an image forming device “including an operation panel, the operation panel comprising a plurality of operations to be selected by a user”, and a monitoring unit configured to “monitor data of selecting of the plurality of operations of the operation panel by the user, including monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations”. The other independent claims 10, 19, and 28 recite similar features.

As noted above, the claims are directed to a system, method, and computer program product that allows monitoring of how a user selects operations on an operation panel of an image forming device. That is, an image forming device includes an operation panel that has plural operations to be selected by a user. Those operations, as non-limiting examples, relate to selection of a number of copies, copy conditions, paper size selection, etc. An operation in the claimed invention is to monitor the selection of those operations by a user. That is, the claims are directed to monitoring when a user selects, e.g., a paper size operation, when the user selects a copy number operation, etc. One objective of the present invention is to monitor such data so that a user's usage of an operation panel can be evaluated, so that the setup, layout, control, etc. of an operation panel of an image forming device can be improved.

Neither Miyachi nor Weiler disclose or suggest any monitoring of operations on an operation panel of an image forming device that a user selects.

The outstanding rejection misinterprets the claimed features relative to disclosure of Miyachi with respect to the above-noted operation of the claimed invention. One basis for the rejection states "[c]learly a multifunction peripheral such as Miyachi's must monitor user input at the operation panel in order to effectuate the proper operations requested by the user".¹ The above statement in the Office Action reflects the Office Action is not properly considering the above claimed features. Of course a multifunction device must recognize which operations on an operation panel a user selects so that the proper copying, scanning, faxing etc. operations are executed. That is not what the claims recite. Recognizing what selections an operator makes, however, does not *indicate that those same operations are monitored and logged*. Applicants respectfully submit it is clearly not the case that a multifunction peripheral such as Miyachi would monitor and log the user's input in an operation panel.

¹ Office Action of March 27, 2007, page 3, prenumbered paragraph 10, lines 3-5.

Another basis for the rejection cites Miyachi to disclose monitoring the selecting of the plurality of operations on the operation panel at column 5, lines 57-65.² That disclosure in Miyachi does not correspond to the claimed features.

At column 5, lines 27-30 Miyachi discloses that the multifunction peripheral includes a user input device 285 with button switches. However, the monitoring referred to at column 5, lines 57-65 in Miyachi is *not* directed to monitoring selections of those button switches, and particularly one of a sequence, timing, or frequency of selecting those buttons. More specifically, at column 5, lines 57-65 Miyachi discloses monitoring the conditions of the multifunction peripheral and updating a status information table such as Table 1 shown in columns 6-7. However, Miyachi does not disclose or suggest monitoring which button switches are selected by a user. In fact, in Table 1 in Miyachi all the status information stored therein is directed to different status indications of the device itself, but is not directed to which selections on an operation panel a user selects. Miyachi merely discloses monitoring different status conditions of the device, but does not disclose or suggest monitoring which buttons on an operation panel a user selects.

Even more specifically, at column 5, lines 57-65 Miyachi refers to “monitoring the condition of the MFP and updating a status information table”. Miyachi does not disclose or suggest the claimed features of monitoring an input sequence of a selection of operations on an operation panel of a user, and such information is in fact of no interest to the device of Miyachi. Table 1 of Miyachi contains status conditions “[User] key original document size selection” and “[User] key paper size selection”. However, Miyachi does not disclose or suggest, nor have any reason, to monitor the sequence, timing, or frequency of selections of operations selected by a user. For example in Miyachi if a change is made from an original

² Office Action of March 27, 2007, page 5, line 3-7.

document size from 11 x 17 to letter size and a paper size selection from letter size to 11 x 17 or size enlargement, the input sequence and frequencies are not at all tracked.

In such ways, Miyachi is not directed to a device even similar to the claimed invention.

The outstanding rejection also appears to cite Weiler in combination with Miyachi with respect to the above-noted features. In that respect, the outstanding rejection appears to cite Weiler to disclose monitoring at least one of a sequence, timing, or frequency of selecting of a plurality of operations and to generate a log of the monitored data, citing Weiler at column 4, lines 48-63.³

However, Weiler does not cure the recognized deficiencies of Miyachi, as now discussed.

At column 4, lines 48-63 Weiler discloses recording a log table of different copy events. However, again that teaching in Weiler is *not* directed to the claimed features of monitoring and keeping a log of at least one of sequence, timing, or frequency of selecting of the operations on an operation panel. Weiler discloses monitoring how copying is being executed, but the log in Weiler would not indicate what buttons on an operation panel of an image forming device the user has selected. Instead, in Weiler the execution of copy events is logged. Such features in Weiler are not directed to the claimed features and do not cure the discussed deficiencies in Miyachi.

The claims recite monitoring at least one of a sequence, timing, or frequency of selecting of the plurality of operations on an operation panel. That is, which operations on an operation panel a user selects is monitored and logged. Weiler simply does not disclose or suggest that feature, but instead Weiler discloses monitoring *copy events*; a copy event does not necessarily correspond to which operation on an operation panel a user selected.

³ Office Action of March 27, 2007, page 5, lines 3-7.

Weiler at the cited column 4, lines 48-63 discloses “each *copy event* is recorded in the event log table in step 915”.⁴ The copy event in Weiler does not detail which operations a user actually selected or how often. For example, with the claimed invention, if a user selected making one copy ten times by pressing the copy button ten times, then that would be logged in the claimed invention in a first way, whereas if a user utilized the operation panel to set the number of copies at ten and then pressed the copy button only once, that would be logged a different second way. In those examples, in the claimed invention, the selected operations on the operation panel are different, so the monitored data is different. That does not appear to be the case in Weiler in that in Weiler only the copy event is recorded, so that in the example noted above in Weiler in each case the only event recorded would be that ten copies are made.

In such ways, the rejection is not fully considering the claimed features relative to Weiler. In the claims what operations a user selects on an operation panel is monitored. In Weiler only copy events are monitored. Thereby, the claims clearly differ from the operation in Weiler.

b) Miyachi in view of Weiler does not disclose or suggest the monitoring unit and communicating unit being “self-contained in the image forming device”

Further, applicants note the claims recite, for example in independent claim 1, that the monitoring unit and the communicating unit are “self-contained in the image forming device”. The other independent claims 10, 19, and 28 recite similar features. That feature is believed to also distinguish over the applied art.

⁴ Weiler at column 4, lines 53-54 (emphasis added).

The rejection appears to cite Miyachi for that feature citing Figure 2, item 110a, and column 5, lines 57-65.⁵

In response to that grounds for rejection, applicants first note, as discussed above in detail, that the monitoring and communicating performed in Miyachi are not at all related to the claimed features. Thereby, Miyachi does not disclose or suggest the same type of monitoring unit and communicating unit being self-contained in the image forming device as claimed.

The outstanding rejection also cited Weiler to disclose features of the monitoring unit, particularly citing Weiler at column 4, lines 48-63.⁶ Weiler, however, teaches a directly contrary structure than as claimed.

Particularly, in Weiler the storing of data is performed in the central control computer 300,⁷ and not in the actual image forming device. The claims recite a different structure than in Weiler in that in the claims the monitoring and communicating are self-contained in the image forming device.

Further, in Weiler the central control computer 300 has to enable the copy function.⁸ Further, in Weiler the mini-terminals 100 are not part of an imaging device, but instead are interfaces between an imaging device and the central control computer 300, as shown for example in Figures 2-4. Also, in Weiler the flowchart shown in Figures 5 and 6 are control programs located in the central control computer 300.⁹

Thus, Weiler clearly differs from the claims as written in that in the claims the monitoring and communicating are self-contained in the image forming device, which is taught away from in Weiler.

⁵ Office Action of March 27, 2007, page 5, lines 13-17.

⁶ See again the Office Action of March 27, 2007 at page 5, lines 3-7.

⁷ Weiler, column 1, lines 47-49.

⁸ Weiler, column 1, lines 44-45.

⁹ Weiler, column 4, lines 8-11.

Thereby, no combination of Miyachi and Weiler meets the above-noted claimed features.

c) Miyachi in view of Weiler do not disclose or suggest the claimed “direct” network access

Each of independent claims 1, 10, 19, and 28 also recite the image forming device having “direct” network access, and that in the image forming device the communicating unit sends the log of the monitored data “through the direct network access”. The claims also recite “to send information based on the log of the monitored data, and to send the information of the monitored data through the direct network access”. As shown for example in Figure 1 the image forming devices 24, 28, 32 have direct network access.

The above features recited in the claims are believed to clearly distinguish over the applied art.

Addressing first the primary reference to Miyachi, Miyachi does not disclose or suggest an image forming apparatus having direct network access, and thereby clearly does not disclose or suggest sending the log of the monitored data through a direct network access. Miyachi shows in Figure 1 the multifunction machine MFP 110a connected to a host 110b to a SCSI; but no direct network access is shown in Miyachi. As a result of such a structure in Miyachi the status of the MFP 110a can only be sent to the host 110b. Thereby, in Miyachi the MFP 110 cannot directly communicate with the network work station 150 and remote station 170.

Weiler also does not disclose or suggest the claimed features of sending a log of the monitored data through network access. The system of Weiler utilizes a serial port as shown in Figure 2, and does not send any data through a network access. Thus, Weiler does not cure that deficiency in Miyachi.

With respect to the above-noted feature the outstanding Office Action also states

However, providing an image forming device with direct network access was well known in the art at the time of the applicants' invention...Direct network access could have easily been incorporated into Miyachi's multifunction peripheral. In addition, Miyachi clearly states the use of image forming devices that have direct network access. See Figure 1, printers 180. Although these devices are different from Miyachi's multifunction peripheral with a monitoring unit and a communicating unit, they show that the ability to provide an image forming device with direct network access was already well known in the art.¹⁰

In reply to that grounds for rejection, applicants respectfully submit the above position in the Office Action only reinforces applicants' arguments that Miyachi does not disclose or suggest such features, and in fact Miyachi teaches away from the noted modification.

That is, the outstanding Office Action recognizes that Miyachi discloses printers 180 with direct network access, but Miyachi specifically does not provide such direct network access to the MFP 110a. Miyachi appears to recognize the MFP 110a therein should only be connected to the host 11b, and should not have direct network access.

Stated another way, Miyachi expressly rejects the proposed modification in the Office Action. Miyachi clearly recognizes not to provide the MFP 110a with direct network access, although Miyachi recognizes the availability of direct network access. Thereby, Miyachi can only be viewed properly as teaching away from the above-noted claim features.

In such ways the combination of teachings of Miyachi in view of Weiler does not meet the above-noted claim features.

¹⁰ Office Action of March 27, 2007, page 4, lines 3-13.

The Further Rejection Based On Aikens

The further rejection relied upon Aikens, but Aikens was not cited with respect to any of the features noted above. Therefore, no further teachings in Aikens are believed to cure the above-noted deficiencies of Miyachi in view of Weiler.

CONCLUSION

In view of the foregoing comments applicants respectfully submit that the outstanding rejections do not meet all the claim limitations, and that thereby the outstanding rejections must be REVERSED.

Respectfully submitted,

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